

## **Nordic/Baltic Regional ESTH Hub e-Letter**

Welcome to the latest e-Letter, our *unclassified* electronic publication sharing regional information, news and events. We encourage you to visit the websites of our Embassies throughout the Hub. Feel free to disseminate to your contacts. At the very end of the e-Letter you will find our featured story, offering background on Antimicrobial Resistance (AMR).

Please note that this is Regional Hub Officer Ed Canuel's last e-Letter. He will soon serve as the State Department's West Point Visiting Professor, teaching cadets many of the ESTH issues he's covered over the years, including Arctic, energy and sustainability issues. Ed passes on his best wishes, and asks that you stay in touch. Ed can be reached via his government email:

[canuelet@state.gov](mailto:canuelet@state.gov)

Enjoy the read!

Ed Canuel  
Bo Gregersen  
Adam Bille  
Kelley Hamrick

## **Denmark**

### **Promoting Sustainability: U.S. Embassy Gathers the Best and Brightest**

U.S. Embassy Denmark hosted a Sustainability and Technology Commercialization webinar, gathering senior U.S. and Northern European experts such as DOE Deputy Assistant Secretary Jonathan Pershing and ARPA-E Deputy Director Cheryl Martin. Key webinar issues included presenting U.S. energy policy perspectives, exploring sustainability-themed research/investments and understanding how breakthrough technologies emerge. Read more [here](#).



(Picture: Regional Hub Officer Edward Canuel and the S&TC team)

### **UN Opens Green Headquarters in Copenhagen**

A new UN City complex fitted with solar panels, rainwater tanks and a seawater cooling system will form the central location for all UN organizations based in Copenhagen. The green features of the award-winning office complex demonstrate the UN's commitment to promote environmental sustainability through green building. Read more [here](#).

### **Denmark Debates Climate Policy in Washington**

Danish Minister of Climate, Energy and Building Martin Lidegaard participated in the Major Economies Forum meetings this spring. The agenda included discussions on how to make progress during climate negotiations and set concrete initiatives to reduce greenhouse gas emissions. Read more [here](#).

### **Meet GROVER, a Mobile Robot to Measure Greenland's Ice Sheet**

NASA is launching a robot that scientists hope will provide more data of the Greenlandic ice sheet in a rapidly warming region. The solar-powered rover will shoot radio wave pulses into the ice sheet to assess the characteristics of snow and ice layers. Read more [here](#). (Picture: [www.fleetnewsdaily.com](http://www.fleetnewsdaily.com))



### **Danish-American Partnership within Energy-Efficient Buildings**

Danish Ambassador to the U.S. Peter Taksoe-Jensen has initiated dialogue between Denmark and the City of Chicago to exchange ideas on energy efficiency. The Ambassador noted that “We are scaling up at our Consulate General in Chicago and adding resources to showcase Denmark’s knowhow and experience in energy efficiency.” Read more [here](#).

## **Estonia**

### **First Estonian Satellite Launched into Space**

The first Estonian satellite ESTCube-1 was launched from the European space port in French Guiana on board the European Space Agency’s newest carrier rocket, Vega. The scientific mission of the ESTCube-1 satellite is to test the components of an electric solar sail, a novel propulsion technology for interplanetary space flight. Read more [here](#).

### **Energy Experts gather in Estonia for the International Oil Shale Symposium**

In June Tallinn hosted high-level energy experts for a discussion about oil shale energy. The Oil Shale Symposium, being held for the fourth time, was attended by representatives of the International Energy Agency (IEA), the World Energy Council (WEC) and experts from the world’s leading oil shale industries and universities. Read more [here](#).

## **Finland**

### **New Concept Icebreaker set for Q1 2014 Delivery**

Finnish/Norwegian shipbuilder Aker Arctic Technology presented a new heavy duty icebreaker, able to move sideways using its 250-foot length to cut a channel that is 165 feet wide, at this year's Offshore Technology Conference in Houston. The ARC 100 vessel's dual-use is designed to be a "game changer" for year-round Arctic oil spill response. Read more [here](#). (Picture: [www.Petro.no](http://www.Petro.no))



### **An Arctic Economic Boom? Not so Fast Say Analysts**

Two Finnish analysts warn that due to its enormous risks, the world's Arctic regions won't likely experience a big boom in shipping or gas and oil development any time soon. Read more [here](#).

## **Germany**

### **Yale University Med School Wins German Prize**

The Else Kröner-Fresenius-Foundation has awarded its inaugural international prize in immunology to renowned Yale immunobiologist Ruslan Medzhitov. The 4 million euro prize was presented June 5 by Germany's Federal Research Minister Johanna Wanka. Read more [here](#).

### **German Court Cuts off Google's Auto-complete**

Germany's top court has made a potentially landmark judgment against Google's internet search engine, ruling that plaintiffs have the right to take down offensive suggestions in its auto-complete function. The court held that a man's rights had been violated by Google on the grounds that its auto-complete function had brought up the words "Scientology" and "fraud" when his name was typed in. Read more [here](#).



### **Germany Puts Fracking on Back Burner**

German Chancellor Angela Merkel's conservatives have dropped plans for a draft law on fracking for the time being, amid concerns by some coalition allies about the oil and gas extraction technique. Read more [here](#).

(Picture: [www.thelocal.de](http://www.thelocal.de))

## **Iceland**

### **Ministry for the Environment to Merge**

The Progressive Party and the Independence Party have formed a new government in Iceland. The parties are going to merge the Ministry of Agriculture and Fisheries and the Ministry for the Environment into one ministry. Critics say that this is the same thing as abolishing the Environment Ministry. Read more [here](#).

### **Iceland Purchases First Oil Exploration Ship**

Foreign Minister Skarphéðinsson announced the making of a contract to build Iceland's first platform supply vessel for servicing oil exploration and production in Icelandic waters. Read more [here](#).

## **Latvia**

### **New Method for Early Cancer Diagnosis**

After six years of research, scientists at Latvia's Biomedical Research and Study Center in Riga are starting to see the fruits of their labor. Last year they made one of the most significant achievements in cancer research by getting a step closer towards a new method for diagnosing gastric cancer in its initial stages. Read more [here](#).



### **Latvian Robots Dominate World's Biggest Championship**

Latvian robots continue to dominate the global stage – this time in the world's largest open robot competition. “Robogames” in San Mateo, California invites the best minds from around the world to compete in over 50 different events. Combat robots, walking humanoids, soccer bots, sumo bots, and even androids that do kung-fu. Read more [here](#). (Picture: [www.baltic-course.com](http://www.baltic-course.com))

## **Lithuania**

### **Chevron on Track to Begin Shale Gas Exploration in Lithuania**

Lithuanian oil and gas exploration company LL Investicijos, whose 50 per cent stake belongs to U.S. oil company Chevron, is planning to begin exploratory drilling by Stempliai village in the district of Šilutė. Read more [here](#).

### **U.S. Will Help Lithuania Ensure its Energy Security**

President Grybauskaitė was recently on a working visit to the U.S. meeting with the Speaker of the House of Representatives, chairs of the congressional committees on foreign affairs and armed forces, and other influential congressmen to discuss regional and energy security issues. Read more [here](#). (Picture: President Grybauskaitė and speaker of the House of Representatives, John Boehner. Source: [www.lithuaniantribune.com](http://www.lithuaniantribune.com))



### **EU Commissioner: Shale Gas Prices in Europe Will Not Reach U.S. Lows**

Lithuania and other European countries will not be able to reach as low prices of shale gas as the U.S. according to European Commissioner for Climate Action Connie Hedegaard while on a visit to Vilnius. Read more [here](#).

### **Norway**

#### **Researchers develop a Method of Removing up to 90% of CO<sub>2</sub> from Coal-Fired Power Emissions**

Researchers at have developed a new, promising method of removing up to 90% of CO<sub>2</sub> from coal-fired power emissions. The technology developed at the Norwegian University of Science and Technology (NTNU) involves a cluster of fibres covered by a thin membrane of polyvinylamine allowing only CO<sub>2</sub> to pass through. Read more [here](#).

#### **Arctic Waters Growing Alarmingly Acidic**

The Arctic Council's Arctic Monitoring and Assessment Programme (AMAP) presented a study on the acidification of the Arctic at the International Conference on Arctic Ocean Acidification in Bergen. The report indicates that the oceans' ability to absorb CO<sub>2</sub> has strongly diminished. Read more [here](#).

#### **Where the Wind Blows the Most**

A new wind park will be located on the coast of the Barents Sea in what might be the windiest spot in all of the Nordic countries. Approximately \$101 million will be invested in 15 turbines, enough to provide sufficient power to 9500 families. Read more [here](#).

#### **Norwegian Firm to Seek Ways to Trap Cement Factory's CO<sub>2</sub>**

Norway's Aker Solutions has won a contract to make the world's first tests for capturing emissions of CO<sub>2</sub> from cement factories as part of efforts to slow climate change. Cement production is the source of about 5 percent of world CO<sub>2</sub> emissions, according to the Earth Institute at Columbia University. Read more [here](#).



## **Sweden**

### **IKEA Completes Maryland's Largest Rooftop Solar Array**

IKEA has plugged in a solar energy system at its distribution center in Maryland, consisting of 18,576 panels. According to IKEA, the state's largest rooftop array will produce enough clean electricity to power 359 homes annually. The installation is the 36th completed solar project for IKEA in the U.S. Read more [here](#).

### **Arctic Council Presents Vision for Future Cooperation in the Arctic Council**

Secretary Kerry joined ministers from the other seven Arctic Council States to sign a new, legally-binding Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic. The treaty substantially improves procedures for combating oil spills in the Arctic. The meeting was held in Kiruna at the conclusion of Sweden's two-year Chairmanship of the Arctic Council. Read more [here](#). (Picture: Secretary Kerry and ministers from other seven Arctic Council states)



### **Skanska Signs Power Plant Construction Contract in Indiana, USA, Worth \$101 Million**

Swedish company, Skanska Industrial contractors will perform structural and mechanical installation on an environmental compliance project. The contract includes structural steel, ductwork, piping and electric cabling. Skanska is currently completing the construction of a pedestrian tunnel on the same campus. Read more [here](#).

### **ABB Buys U.S. Solar Energy Company Power-One**

Swedish-Swiss ABB is acquiring California-based solar company Power-One, Nasdaq reports. ABB will reportedly pay around \$1 billion to acquire Power-One to expand its solar business. Read more [here](#).

## **Poland**

### **Facebook's Zuckerberg meets Poland's Digital Minister in Warsaw**

Facebook founder Mark Zuckerberg met with Minister of Administration and Digitization Michal Boni to discuss internet freedom and Poland as a source of top programmers. Zuckerberg said that one of the key issues discussed were protection of personal data on the internet, an issue which many have criticized the social media giant for in the past. Read more [here](#).

## **Russia**

### **Legacy Waste Meetings**

A U.S. EPA delegation met with Russian colleagues at the Ministries of Economic Development and Natural Resources and Environment. The delegation was part of a Superfund information exchange being conducted under the Environmental Working Group of the Bilateral Presidential Commission. Addressing highly-contaminated Soviet-era legacy waste sites is one of the key environmental tasks targeted by the Russian government for 2013.

### **WHO Europe Health Report**

The World Health Organization (WHO)'s European Health Report has Russia topping the list for total DALYs (Disability-adjusted life-years) lost due to high male mortality. Non-communicable diseases account for the largest proportion of deaths, at 80%. European men have an average life expectancy at birth of 72.5 years--the rate for Russian men is 62.8 years. Read more [here](#).

### **Russia's New Anti-Smoking Law Comes into Force**

Russia's new tobacco law came into effect on June 1st. Though certain elements of the bill will not manifest until 2014, a number of them are now in force. These include smoking prohibitions in educational, medical and cultural facilities, all governmental organizations, workplaces, apartment building elevators, playgrounds, beaches, gas stations and all public transport. Read more [here](#).

## **European Union**

### **European Coal Pollution Causes 22,300 Premature Deaths Annually**

According to a major study of the health impacts of burning coal, air pollution from 300 of Europe's largest coal power stations causes 22,300 premature deaths a year, costing companies and governments billions of dollars in disease treatment and lost working days. Read more [here](#).

### **EU Ministers Reach Deal on Fisheries Reform**

EU ministers agreed on a reform of the EU's fishing quota system that must now be approved by the European Parliament, where lawmakers are set on curbing overfishing. Ireland, which chaired the talks under the country's six-month EU presidency, is seeking to reconcile the conflicting interests of member states with the stance of the European Parliament. Read more [here](#).

### **The EU Commission Orders Statoil Raid**

Statoil has been accused of cartel activity, or what is also known as a breach of the Competition Act in the EEA agreement. Shell and BP have also been accused in the case, and are under investigation by the EU Commission in Brussels. Read more [here](#).

### **EU Waste Rules Could Create 400,000 Jobs**

If European Union countries implemented existing waste-management regulations, they could create some 400,000 jobs and save diminishing resources, a senior Commission environment official said. Struggling to cope economically with energy-rich United States and the industrial rise of China and India, the EU sees resource efficiency as a key driver of growth. Read more [here](#).

## **Renewables to Exceed Fossil Fuels in European Generation by 2020**

Europe's share of generation capacity using renewable sources will rise to at least 40 percent by 2020, exceeding capacity fueled by coal, natural gas and oil, according to the region's grid operators group Entsoe. The EU aims to generate 20 percent of its power from renewable energy by 2020. Read more [here](#).

## **United States**

### **The National Science and Technology Council releases a five-year Arctic Research Plan**

The five-year Arctic Research Plan outlines key areas of study the Federal government will undertake to better understand and predict environmental changes in the Arctic. Multiple federal organizations will work together to assess the resilience and vulnerabilities of Arctic communities to the impacts of climate change. Read more [here](#).

### **Secretary Kerry Address Global Warming in First Foreign Policy Speech**

In his first major foreign policy speech Secretary Kerry argued that Americans need to garner up the "courage" to tackle climate change. Kerry added that new environmental policies and investments in green energy technologies should be a priority for the State Department. Read more [here](#).

### **Renewables Made Up 82% of New U.S. Electrical Generating Capacity in Q1**

Wind, solar, biomass, geothermal and hydro power accounted for 82 percent of all new electrical generating capacity installed in the United States in the first quarter of 2013 for a total of 1,546 MW. The numbers were recently presented by the Federal Energy Regulatory Commission. Read more [here](#). (Picture: [eere.energy.gov](http://eere.energy.gov))

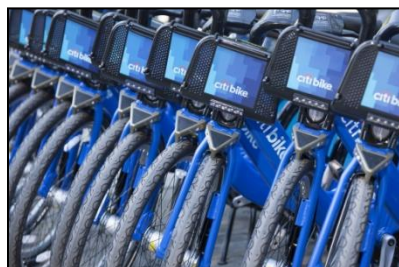


### **Solar industry has record year**

The U.S. solar industry experienced record growth last year, according to a Solar Energy Industries Association (SEIA) and GTM Research study. The jump was a 76 percent increase compared with 2011 — bringing the national PV total to 7,221 megawatts. Read more [here](#).

### **U.S. approves 1,100 Megawatts of Wind, Solar Projects**

The U.S. approved two solar farms and one wind project in California and Nevada, totaling 1,100 megawatts, enough to power more than 340,000 homes. The U.S. doubled its use of renewable-energy during the past four years as part of the Obama administration's strategy of promoting wider use of solar, wind and geothermal energy. Read more [here](#).



### **New York City Unveils Bike Sharing Program**

Mayor Michael Bloomberg of New York City unveiled the City's new bike sharing program. The fleet consists of 6,000 bicycles, part of a system known as Citi Bike, scattered across more than 300 stations in Manhattan below 59th Street and parts of Brooklyn. Read more [here](#).



### **U.S. Companies Team up to Reduce Energy Consumption**

Johnson Controls, Macy's, and Sprint are joining President Obama's Better Buildings Challenge, thus, committing to energy efficiency and reducing waste. The companies will upgrade more than 19 million square meters of building space to cut energy use by at least 20 percent by 2020. Read more [here](#).

### **U.S. Ranks First In Green Tax Index**

The U.S. ranked first among 21 countries most actively using the tax code to influence sustainable corporate activity, according to the inaugural edition of the KPMG Green Tax Index. The top ranking is primarily due to federal tax incentives for energy efficiency, renewable energy and green buildings. Read more [here](#).

### **University of Georgia Discovery**

Researchers at the University of Georgia have found a way to transform CO<sub>2</sub> trapped in the atmosphere into useful industrial products. Their discovery may soon lead to the creation of biofuels made directly from atmospheric CO<sub>2</sub>. Read more [here](#).

### **City of Cambridge, MIT and Harvard Launch Historic Community Compact for a Sustainable Future**

The City of Cambridge, Harvard University and the Massachusetts Institute of Technology signed a "Community Compact for a Sustainable Future" aimed at leveraging the intellectual and entrepreneurial capacity of the business, non-profit, education and municipal sectors in Cambridge to contribute to a healthy, livable and sustainable future. Read more [here](#).

### **Upcoming Events**

#### **World Water Week**

September 1-6, 2003. Stockholm, Sweden.

[www.worldwaterweek.org](http://www.worldwaterweek.org)

#### **Renewable Energy Forum, Intpow**

September 3, 2013. Oslo, Norway

[www.intpow.no](http://www.intpow.no)

#### **DTU International Energy Conference**

September 10-12, 2013. Lyngby, Denmark.

[www.natlab.dtu.dk](http://www.natlab.dtu.dk)

#### **Global Green Growth Forum**

October 21-22, 2013. Copenhagen, Denmark.

[www.3gf.dk](http://www.3gf.dk)

#### **Total Energy USA 2013**

November 19-21, 2013. Houston TX, USA.

[www.totalenergyusa.com](http://www.totalenergyusa.com)

## Featured Story

### **Antimicrobial Resistance (AMR)**

Antimicrobials are solutions to infectious diseases caused by microorganisms such as bacteria, fungi. An administered antimicrobial kills or inhibits the growth of microorganisms. Antibiotics, typically used to combat bacteria, fall under this category. Some microorganisms through accidental mutation or gene selection will acquire immunity to an antimicrobial; this is referred to as antimicrobial resistance. These organisms are unaffected by standard treatment and will continue to reproduce and pass on their resistant genes. (Picture. [www.who.int](http://www.who.int))



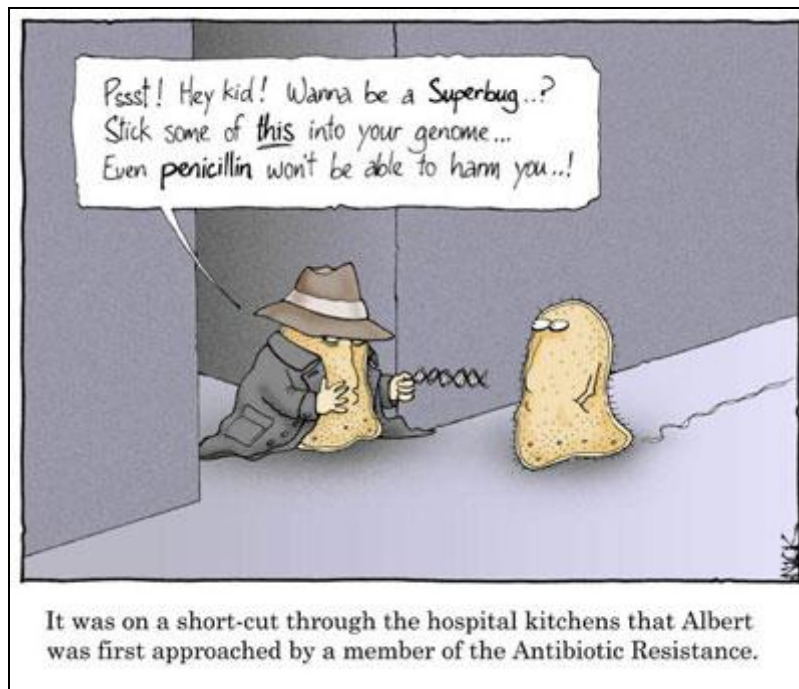
### **Consequences**

Antimicrobial resistance presents overwhelming medical implications. If antimicrobial drugs became obsolete, common ailments such as strep throat or a scratch could become deadly. Routine surgeries might also cease to be performed due to the high risks of infection. AMR is affecting health conditions worldwide. Each year more than 25,000 Europeans die of antimicrobial resistant diseases. Resistant infections cost the U.S. healthcare system roughly \$20 billion per year.

### **Causes**

The current rate at which infectious microorganisms acquires resistance is rising. Misuse and overuse of antimicrobials in recent years has led to a selective pressure which favors drug resistant infectious organisms. A significant obstacle to combating antimicrobial resistance is the over prescription of antibiotics. This practice may kill off beneficial bacteria and increase the rate at which resistant strains develop. Underuse of antimicrobials can also pose a problem. When a patient fails to complete a full prescription regimen, increased antimicrobial resistance may result.

In addition to human implications, the practice of providing antimicrobials to livestock may promote drug resistance. FDA figures show that 70-80% of the antimicrobials used in the U.S. are provided to cattle, chicken and pigs rather than humans. These drugs are administered when the animals are healthy in order to prevent sickness and promote growth. Studies have evidenced a link between increased resistance in microorganisms and antimicrobial use in livestock. In a recent New York court case, the FDA was ordered to begin implementing a ban on the widespread use of antibiotics in livestock. The FDA has since issued guidelines for phasing out antimicrobial use in livestock for purposes other than disease control.



(Picture: [www.thehealthculture.com](http://www.thehealthculture.com))

### Raising Awareness

The first step in combating antimicrobial resistance is promoting public awareness. A recent push has developed to address this problem and find long-lasting solutions. The Danish EU presidency in 2012 held a conference entitled, “Combating Antimicrobial Resistance - Time for Joint Action.” Several taskforces have also been established to identify and monitor AMR issues. One such taskforce, a collaborative effort between the U.S. and EU, is the Transatlantic Taskforce on Antimicrobial Resistance (TATAR).

### Further Reading:

WHO: <http://www.euro.who.int/en/what-we-do/health-topics/disease-prevention/antimicrobial-resistance/antibiotic-resistance/frequently-asked-questions>

CDC: <http://www.cdc.gov/drugresistance/index.html>

FDA: <http://www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/default.htm>

NIAID: <http://www.niaid.nih.gov/topics/antimicrobialresistance/Pages/default.aspx>